



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,880	01/25/2002	Masayuki Naya	Q66583	5432

7590 11/30/2004
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER ROSENBERGER, RICHARD A	
ART UNIT 2877	PAPER NUMBER

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,880	NAYA, MASAYUKI	
	Examiner	Art Unit	
	Richard A Rosenberger	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-42 is/are allowed.
- 6) ☒ Claim(s) 1,5-7,11-13,17 and 18, 43 is/are rejected.
- 7) ☒ Claim(s) 2-4, 8-10, 14-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-7, 11-13, 17, 18 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickel et al (US 5,141,311) in view of Sartor (US 5,416,573).

The basic sensor using attenuated total reflection such as surface plasmon resonance is known in the art; see Hickel et al, which has a claimed dielectric block (6) with a thin film (3), light source and photodetection means (8) for detecting an image. Although the reference does not use the word "collimated" to describe the light beam, it is clear from the disclosure and from the operation of the system based upon the optical effect being used to generate the image, in particular the angular dependence of the optical effect (see column 2, lines 25-31 and column 3, line 52 through column 4, line 7), that the light beam is, and is intended to be, collimated. It is thus at least obvious to use collimated light in the system of Hickel et al.

It is known in the imaging art that with such optical arrangements produce distortion of the detected image, and it is known in the art to correct for the distortion by placing an optical compensation system in the light path after the

dielectric block (prism); see Sartor, with its optical compensation means 44. It would have been obvious to use such a known optical compensation means in a arrangement such as shown by Hickel et al because it is known that the problem of distortion occurs, as shown by Sartor, it is known that the optical compensation means produces a beneficial correction of that distortion. The use of the optical compensation means corrects for the distortion that occurs as a result of the off-axis viewing, and thus it would have been obvious to apply such compensation to any such arrangement with a similar optical path.

3. As set forth in the previous office action, claims 19-42 are allowable, and claims 2-4, 8-10 and 14-16 are objected to as being dependent upon unallowed parent claims but would be allowable if rewritten in independent form including all of the limitations of their respective parent claims.

4. The remarks filed 10 September 2004 have been considered, but have not been found to be persuasive.

As the remarks filed 10 September 2004 point out, the compensation system of Sartor compensates for view angle distortion (remarks, page 15, line 12). It would have been obvious to use this type of known view angle distortion system in other systems in which the same type of view angle distortion occurs, such as the system of Hickel et al. Although, as the remarks point out, the Sartor reference does

mention moisture, it is the distortion due to the view angle that is compensated for. The view angle distortion is caused by the viewing angle, not by any moisture that may or may not be present on object being viewed. The remarks have confused a general teaching of compensation for view angle distortion with an application-specific reason for having view angle distortion that needs correcting. Those in the art would, and would have found it obvious, to combine a method of correcting view angle distortion with a instrument with view angle distortion in order to compensate for that distortion. This is particularly the case when, as here, the view angle distortion arises though the same mechanism of imaging a pattern at or on a first surface of a prism by illuminating the surface through a second side of the prism and imaging the surface at an angle through a third another side of the prism.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

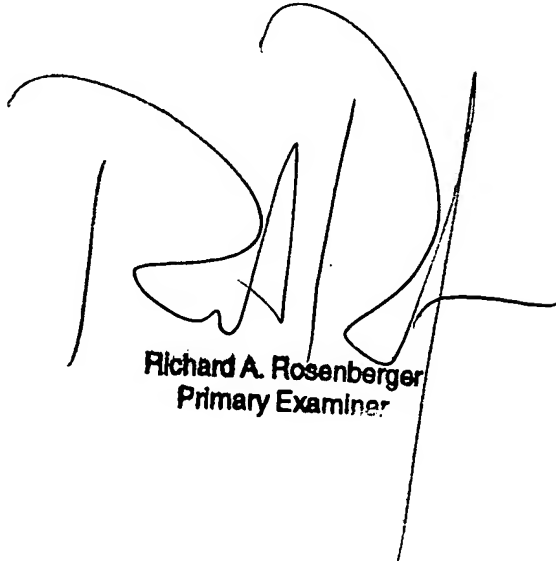
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard A Rosenberger whose telephone number is (571) 272-2428. The examiner can normally be reached on Monday through

Friday during the hours of 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. A. Rosenberger
24 November 2004



Richard A. Rosenberger
Primary Examiner